

THE NEW ENERGY CODE IN ALBERTA

NATIONAL ENERGY CODE OF CANADA FOR BUILDINGS 2017 | PRESENTATION OUTLINE

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9:30am

Kinplex Social Room

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1.0 ENERGY CODE OVERVIEW

- Definition
- Implications for building design
- Timeline of development
 - Future goals
- Challenges & opportunities
- Role of the Coordinating Professional
- AIBC / EGBC Energy Modeling Professional Practice Guidelines
- Fundamental components affecting building energy consumption

2.0 COMPLIANCE OPTIONS

- Prescriptive Path
- Simple Trade-Off Path
- Performance Path
- Guidelines for choosing a compliance path

3.0 KEY CHANGES IN NECB 2017

- Envelope thermal performance values increasing
 - Roof and glazing U-values in Climate Zone 6 (Medicine Hat)
- Detailed Trade-Off Path removed as an accepted solution
- New provision for semi-heated buildings



- Thermal bridging
 - Description
 - Linear and point thermal transmittances
 - Poor vs. improved thermal bridging details
 - Key areas
 - At-grade transitions
 - Roof to wall transitions / parapets
 - Window to wall transitions
 - Steel frame vs. wood frame
 - Cladding attachment systems
 - Z-girts
 - Review of common low-conductivity solutions (e.g. Cascadia Clip)
 - Methods to reduce (and sometimes even eliminate) thermal bridges
 - Resources

4.0 COMPLIANCE STRATEGIES

- High R-value walls
 - Thermal bridging solutions
- Windows
 - U-value
 - Fenestration and door to wall ratio (FDWR)
- Simple Trade-Off methodology
- HVAC
 - Demand-control ventilation
 - Heat-recovery ventilation (HRV)
 - High efficiency heating systems
- Lighting
 - High efficiency lighting
 - Daylight & occupancy sensors
- Passive energy conservation measures (ECMs)

5.0 NECB 2017 CASE STUDIES

- NECB 2017 effective in Saskatchewan as of Jan. 1, 2019.
- Overview of several projects
 - Challenges
 - Strategies
- Lessons learned

6.0 QUESTIONS & DISCUSSION